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ABSTRACT

Prepared to assist distributive education personnel in program development and evaluation, this bulletin identifies, compares, and analyzes 100 teaching beliefs of secondary teacher-coordinators. It also identifies those classroom teaching techniques found to be effective for cooperative and project-plan programs. Extracted, for the most part, from a doctoral dissertation, data found in this bulletin were collected from a sample of 120 teacher-coordinators in a six-state area. Following the statistical analysis and findings, it was concluded that these teaching belief statements are valid for all distributive education teacher-coordinators. Several other conclusions were reached plus five recommendations, one of which states that the findings of this study should be closely examined by all program personnel. The teaching belief statements can be used as the basis for evaluative criteria in secondary, postsecondary, adult, and teacher education programs. (Author/JS)

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TEACHING BELIEFS & CLASSROOM METHODOLOGY OF SELECTED PROJECT AND COOPERATIVE PLAN DISTRIBUTIVE EDUCATION TEACHER COORDINATORS

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FOREWORD

The Council for Distributive Teacher Education was organized in 1961. Membership in the organization consists of teacher educators and other distributive education personnel with an interest in advancing distributive teacher education. The primary interests of the Council are research and publication.

This bulletin is the report of a study on Teaching Beliefs and Classroom Methodology of Selected Project and Cooperative Plan Distributive Education Teacher Coordinators. The study is concerned with the identification, comparison, and analysis of the teaching beliefs of teacher coordinators in an effort to determine effective teaching techniques and methods in this field.

The report has valuable implications for teacher educators, teacher coordinators and others responsible for the quality of teaching in distributive education. The teaching belief statements can be used as the basis for evaluative criteria in secondary, post-secondary, adult, and teacher education programs. Recommendations for further research are also included.

The study was completed by Dr. John R. Doneth, Associate Professor of Distributive Education, Ferris State College. It was published and distributed through the courtesy of the Distributive Education Department, School of Teacher Education, Ferris State College, Big Rapids, Michigan. Requests for copies should be addressed to Dr. Doneth.

Reno S. Knouse, Chairman
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This report contains portions of a dissertation submitted in partial fulfillment of the requirements for the Doctor of Education degree in the College of Business, Department of Business Education, Northern Illinois University, DeKalb, Illinois in 1969. The dissertation was completed under the direction of Dr. E. Edward Harris, Dr. Ruth B. Woolschlager, and Dr. Wesley I. Schmidt.

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INTRODUCTION

Two comprehensive vocational education acts have been signed into law by President Johnson within the last five-year period. The Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 have, individually and collectively, identified and emphasized the role of vocational education in our society. The field of distributive education is faced with the challenge which these legislative acts present; that challenge is the preparation of informed and employable individuals for the vocation of distribution.

Employment preparation for distributive occupations is focused, at the secondary level, on two organizational patterns: the cooperative plan and the project plan. Implementation of either one or both of these plans is followed when training youth for the world of work.

This research study was conducted to assist project-plan and cooperative-plan distributive education personnel with the classroom phase of their total distributive education program. Research was conducted specifically in the area of teaching beliefs and classroom methodology.

SUMMARY

This study identified, compared, and analyzed teaching beliefs of cooperative-plan and project-plan secondary distributive education teacher-coordinators. The study also determined those classroom teaching techniques and methods found effective by the two secondary school distributive education teacher-coordinator groups studied.

The research was conducted to determine:

1. the stated, specific teaching beliefs of distributive education teacher-coordinators.

2. the teaching beliefs held by both cooperative-plan and project-plan distributive education teacher-coordinators.

3. the teaching beliefs held by those project-plan distributive education teacher-coordinators identified as outstanding and least effective by teacher-educators and state supervisors of distributive education.

4. the teaching beliefs held by those cooperative-plan distributive education teacher-coordinators identified as outstanding and least effective by teacher-educators and state supervisors of distributive education.

5. the comparison of previously-determined teaching beliefs of teacher-educators, state supervisors, assistant state supervisors, and the identical teaching beliefs repeated in this study with selected distributive education teacher-coordinators.

6. the relationship of the cooperative-plan teacher-coordinators identified as outstanding and as least effective in classroom methodology by teacher-educators and state supervisors of distributive education to selected issues associated with the background information reported by these participants.

7. the relationship of the project-plan teacher-coordinators identified as outstanding and as least effective in classroom methodology by teacher-educators and state supervisors of distributive education to selected issues associated with the background information reported by these participants.

A survey instrument was utilized in this study to gather the information associated with the teaching beliefs and classroom methodology of project-plan and cooperative-plan distributive education teacher-coordinators. The selected sample was 120 teacher-coordinators in the states of Arizona, Florida, Michigan, Virginia, Washington, and Wisconsin.

Teaching Beliefs of Project-Plan and Cooperative-Plan Distributive Education Teacher-Coordinators

The 49 cooperative-plan and 50 project-plan distributive education teacher-coordinators who participated in this study were selected by the following methods: (1) rankings from state supervisors of distributive education and/or distributive education teacher-educators in their respective states, and (2) random selection from official state lists of teacher-coordinators. The rankings identified those teacher-

coordinators considered outstanding (high-ranked) and those considered least effective (low-ranked) by state supervisors of distributive education and distributive education teacher-educators.

The participants of this study were requested to respond to each of the 100 teaching belief statements. Background information for the preparation of the belief statements numbered 1 - 80 was drawn from books, articles, monographs, and research related to classroom teaching in distributive education, and from the personal experience and background of the investigator. These belief statements were validated by a jury of five leaders in the field of distributive education. Teaching belief statements numbered 81 - 100, directly applicable to classroom instruction, were selected from Crawford's research report.[1]

The responses to the 100 teaching belief statements were recorded on a 5-point scale: (1) agree; (2) partially agree; (3) neutral; (4) partially disagree; and, (5) disagree. No values were assigned when a respondent failed to answer a belief statement.

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[1]Lucy C. Crawford, A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education, Vol. I, United States Office of Education Grant No. OE-6-85-044 (Blacksburg: Virginia Polytechnic Institute, 1967), pp. 20-29.

I. Mean Score Analysis of Teaching Belief Statements

Mean scores were used to describe the distribution of responses on the belief statements numbered 1 - 80. Thirty-seven of the 80 belief statements achieved a mean score of less than 1.5000. These 37 belief statements related to the following distributive education instructional areas: curriculum, guidance, organization, and administration. Nineteen of the 80 belief statements had a mean score between 1.5000 and 1.9999. These 19 belief statements related to the following distributive education instructional areas: classroom objectives, classroom atmosphere, and teaching techniques. Therefore, 56 of the 80 belief statements reported a mean score of less than 2.0000. These data indicate that the majority of respondents "agree" with the belief concepts stated in the 56 teaching belief statements.

Eleven of the 80 belief statements had a mean score between 2.0000 and 2.9999. Classification of these belief statements, related to distributive education teaching, were: instructional processes and occupational goals. These data indicate that the majority of respondents "partially agree" with the belief concepts stated in the 11 teaching belief statements. Thirteen of the 80 belief statements received a mean

score of 3.0000 or above. Classification of these belief statements, related to distributive education teaching, were: learning environment, teacher responsibilities, and student evaluation. These data indicate that the majority of respondents are "negative" in their reactions to the belief concepts stated in the 13 teaching belief statements. The total responses, mean scores, and standard deviations of teaching belief statements numbered 1 - 80 appear in Table I.

A high degree of similarity and homegeneity exists between Crawford's findings and responses of the 99 respondents of this study on belief statements numbered 81 - 100. Of the 20 belief statements repeated in this study, 7 statements recorded a lower mean score; 2 statements have the same mean score; and, 7 statements are within three one-hundredths of the mean reported in the Crawford study.[2] Crawford's findings and responses of the 99 respondents of this study appear in Table II.

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[2] Ibid.

TABLE I

TOTAL RESPONSES, MEAN SCORES, AND STANDARD DEVIATION FOR 80 BELIEF STATEMENTS CONCERNING CLASSROOM METHODOLOGY WHICH WERE VALIDATED BY A JURY OF EXPERTS AND SUBMITTED TO 120 DISTRIBUTIVE EDUCATION TEACHER-COORDINATORS

Statement I believe that ...	Number	Mean Score	Standard Deviation
(1) each student enrolled in the distributive education program should be able to accomplish the general classroom goals.	99	1.2222	0.5813
(2) each D. E. student should receive instruction at his particular level of understanding.	98	1.3163	0.5850
(3) active participation in small groups tends to increase individual participation when the total group unites.	99	1.3838	0.6342
(4) in a D. E. classroom, the use of audio-visual devices is justifiable only when it enhances the students' understanding of material being taught.	99	1.7677	1.2023
(5) a large part of teaching D. E. involves observing, listening, explaining, questioning, counseling, and discussion.	99	1.1010	0.4843

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(6) an informal atmosphere in the D. E. classroom is essential for effective learning.	99	1.6566	0.8940
(7) the majority of students enrolled in the D. E. program should qualify for immediate employment in the field of distribution upon satisfactory completion of the program.	99	1.3838	0.8044
(8) distributive education teachers should require a reasonable degree of cooperation and consistency of behavior from each student.	99	1.0909	0.3804
(9) when the teacher-coordinator makes problem-solving assignments, clear guidelines should be provided.	98	1.4694	0.9654
(10) occupational goals set by D. E. students themselves are desirable; however, students need assistance from the teacher-coordinator and counselor clarifying these goals.	99	1.1515	0.3604
(11) the D. E. teacher should aid each student to make adjustments in individual learning problems and avoid assigning projects and tasks which are beyond the student's ability.	98	1.5408	0.7755

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(12) D. E. classroom experiences should help the students in achieving goals which they have identified, but not yet reached.	99	1.2323	0.5860
(13) one role of the D. E. instructor is to assist the students in developing self-reliance so that they will be able to work independently.	99	1.1515	0.6286
(14) learning in a D. E. classroom progresses from the practical application to the theoretical.	97	2.9072	1.4796
(15) D. E. teachers should use numerous teaching techniques and varied procedures to increase learning in the classroom.	99	1.1010	0.4402
(16) rewarding experiences are more effective than penalizing experiences in a distributive education classroom situation.	99	1.4343	0.8227
(17) at the beginning of a class period, the D. E. teacher should briefly review the "key points" of the previous day's discussion.	99	1.5960	0.8912
(18) at the end of a class period, the D. E. teacher should review the "key points" of that day's discussion.	99	1.7273	0.9879

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(19) a D. E. teacher should use the same "standards" for grading all students.	99	3.2222	1.5620
(20) student achievement can be measured in a D. E. classroom by paper-and-pencil tests.	99	4.0404	1.2282
(21) the D. E. teacher must reinforce the student's response to <u>each</u> question answered.	98	3.0102	1.3660
(22) the D. E. teacher's role is to place the students at ease and encourage discussion.	98	1.3776	0.6009
(23) the D. E. teacher's role is to listen to and understand the students' needs and wants.	99	1.4747	0.7606
(24) punctuality must be upheld as a responsibility by students and the teacher.	99	1.1010	0.4628
(25) grooming standards in a D. E. classroom must be exemplified by the businesslike appearance of the teacher.	99	1.0303	0.1723
(26) homework assignments in D. E. should be given three, four or five days in advance because of the varied responsibilities of students.	99	1.9596	1.0966

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(27) the development of "desirable" student "behavior" is the major purpose of instruction in D. E.	98	2.6633	1.4498
(28) lesson plans serve as guides (or road-maps), yet the D. E. teacher must be flexible in his approach and discuss current topics related to the world of work.	99	1.0909	0.2889
(29) the major areas of instruction in D. E. are marketing, social skills, product or service technology, fundamental skills, and economics of distribution.	99	1.4949	0.9189
(30) some areas of instruction (e.g. Economics of Distribution) should be taught even though they may not be in the immediate interest range of all students.	99	1.3535	0.6748
(31) a major goal of the Distributive Education Program is to prepare students to qualify for a job, enter into full-time employment, and advance toward their ultimate career objective in Distribution.	99	1.3232	0.6520
(32) D. E. course content is based on opportunities in distribution in national, state, and regional employment areas.	99	1.6232	0.9958

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(33) D. E. students should learn and work at rates which they have determined themselves.	99	3.3232	1.3464
(34) some degree of tension and frustration can be beneficial to learning.	99	1.8990	1.0642
(35) peer group pressure is more effective as a disciplinary action than teacher-imposed pressure.	99	1.8990	0.9948
(36) D. E. assignments, projects, or responsibilities should be stated in clear, simple language	99	1.1818	0.4816
(37) D. E. trainees are motivated to learn when they see real purpose in the instruction.	99	1.1212	0.4109
(38) humor, or witty expressions, to illustrate a certain point, or break tension, will enhance student attention and learning.	98	1.2551	0.4829
(39) when the D. E. teacher is enthusiastic, his students become enthusiastic.	98	1.2755	0.5133
(40) repetition is an important element of effective teaching.	98	1.7857	1.0379

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(41) classroom instruction should be more marketing oriented than retailing oriented.	99	2.5253	1.3120
(42) D. E. students should be kept abreast of current changes and development in the field of distribution.	99	1.0606	0.2398
(43) D. E. teachers cannot relate classroom theory to business practices unless they have first-hand business experience.	98	1.4796	0.8994
(44) well-planned individual and group field interviews, and field trips, enable distributive education students to observe distributive business in operation so that they can see the application ot classroom learning.	99	1.1717	0.3791
(45) when D. E. students are actively involved in meaningful classroom activities, discipline problems are at a minimum.	99	1.2121	0.5937
(46) lesson plans are not needed by the "master" D. E. teacher.	99	4.2222	1.2335
(47) programmed learning in D. E. is one tool which may be used to individualize instruction.	99	1.7071	0.9716

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(48) D. E. students should be tested at least once a week, thus giving the student a good review and evidence of progress.	99	3.0101	1.3960
(49) case studies based on hypothetical situations are not as meaningful as case studies based on real situations.	99	2.1818	1.2727
(50) D. E. teachers should teach current practices in distribution and not rely solely on textbooks.	99	1.1414	0.4043
(51) D. E. students should be encouraged to reason out a problem and not simply to memorize facts.	99	1.0606	0.2398
(52) during teacher-student planned activities (e.g., D.E.C.A. Club activities), the teacher is a member of the group, and his responsibility is as a resource person, sharing ideas and supplying materials when needed.	99	1.3434	0.6725
(53) the technique of using the last five minutes of each class period as study time will be beneficial to all students.	99	3.8586	1.2290

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(54) teachers with no practical experience in marketing can be effective in the D. E. classroom.	99	3.4848	1.3276
(55) I.Q. is the major factor in determining students' achievement in the D. E. classroom.	99	4.6465	0.8245
(56) the classroom behavior of a student should affect his subject matter grade.	99	2.5051	1.3656
(57) the major responsibility of classroom instruction in D.E. is to solve the personal problems of students.	98	4.0000	1.2184
(58) the secondary responsibility of classroom instruction in D. E. is to prepare students to become successful workers.	99	3.4747	1.5276
(59) teacher-directed questions should be related to a "give and take" learning experience, not for the purpose ot embarrassment or punishment of the student.	99	1.1818	0.4599
(60) cooperative and project students should not be placed in the same D. E. class during the year in which they are involved with experiences in business.	99	2.4949	1.5543

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(61) student selection of a career objective, in the field of distribution, is a sound educational practice.	99	1.7475	0.9620
(62) D. E. classroom instruction should include testing which measures aptitude and interest, needed for realistic vocational planning by the student.	99	1.6869	0.9108
(63) simulated occupational experience in the D. E. laboratory can substitute for directed (on-the-job) occupational experience.	99	3.0101	1.4742
(64) D. E. teachers need approximately 30 minutes per student, per week, of released time as part of the regular school day to develop, coordinate, and utilize community and school resources for occupationally-directed learning experiences.	99	1.5051	0.9299
(65) adequate individual records (Project--training record; Cooperative--training plan) must be maintained to illustrate students' accomplishments and evaluate student strengths and weaknesses.	99	1.4141	0.7286

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(66) detention should be assigned for those D. E. students who fail to follow the rules and regulations of the classroom or the school.	99	2.4646	1.5539
(67) the competencies needed for employment in the field of distribution cannot be accomplished properly in a classroom setting with daily 40- to 50-minute periods of instruction for one school year.	99	2.5253	1.4870
(68) the D. E. teacher spends a significant percentage of his student-contact time on guidance and counseling functions.	99	1.3333	0.6701
(69) class periods should be scheduled to allow blocks of time (two or more consecutive periods) for the students to work on complex learning activities.	99	2.0101	1.2494
(70) learning in a D. E. classroom progresses from the theoretical to the practical application.	99	1.7980	1.2120
(71) D. E. students' written business reports, exams and assignments should be graded on content, completeness, grammar, neatness, accuracy, and coherence.	99	1.5051	0.8964

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(72) a major benefit a student should derive from the D. E. program is the ability to work well with others.	99	1.1111	0.4012
(73) having students write answers to the questions at the end of a unit or chapter of a textbook is a desirable learning experience for the students.	99	3.1818	1.2965
(74) in the classroom, discretion should be exercised in using specific store names when discussing strengths and weaknesses of distributive practices in the general locale.	99	1.7677	1.1591
(75) all students enrolled in the D. E. program should qualify for immediate employment in the field of distribution upon satisfactory completion of the program.	99	2.5657	1.3789
(76) the majority of students enrolled in the D. E. program should qualify for immediate employment in the field of distribution upon satisfactory completion of the program.	98	1.4592	0.8393
(77) D. E. laboratory equipment should, as closely as possible, duplicate the store equipment of the "downtown merchant."	99	1.6162	1.0273

TABLE I (Continued)

I believe that ...	Number	Mean Score	Standard Deviation
(78) D. E. course content is based on opportunities in distribution in the employment area served by the school.	98	2.4286	1.2600
(79) quality classroom instruction is limited by the creativity, drive, and ability of the D. E. teacher.	98	1.5510	0.8264
(80) a D. E. teacher should keep himself informed on current business practices through employment and attendance at related seminars and workshops and participate in professional associations and trade associations.	98	1.1327	0.3699

TABLE II

A COMPARISON OF MEAN SCORES AND LISTING OF STANDARD DEVIATION ON SELECTED BELIEF STATEMENTS FROM CRAWFORD'S RESEARCH STUDY REPEATED WITH DISTRIBUTIVE EDUCATION TEACHER-COORDINATORS IN THIS RESEARCH STUDY

I believe that ...	Crawford Mean Score	Number	Mean Score	Standard Deviation
*(81) the distributive education program should be sensitive to changes in distributive and marketing practices and procedures as they are affected by societal, economic, technical, and educational developments, and adapt to such changes.	1.20	99	1.1111	0.3159
(82) a primary goal of each D. E. teacher-coordinator's guidance activities should be the growth and adjustment of individual students in relation to their occupational interests in distribution and marketing.	1.48	99	1.1616	0.3700
(83) distributive education students should be provided continuous assistance in securing the knowledge, skills, and attitudes needed in making adequate choices, plans and interpretations essential to satisfactory adjustment in the distributive occupations.	1.17	99	1.1919	0.5283

TABLE II (Continued)

I believe that ...	Crawford Mean Score	Number	Mean Score	Standard Deviation
(84) each distributive education student is a unique person intellectually, socially, emotionally and physically and should be treated individually according to his capacities and interests.	1.20	99	1.2121	0.5005
(85) cooperative effort should be made to detect and modify conditions that interfere with the distributive education student's advantageous use of his educational and occupational opportunities.	1.25	98	1.2551	0.5432
(86) many youth need supervised occupational experience as well as correlated instruction in the skills, knowledge and attitudes of their occupations in order to make them more intelligent and productive in economic life.	1.42	99	1.1919	0.6651
(87) each student enrolled in distributive education should be made fully aware of the opportunities and careers in distribution and marketing that are available to him.	1.14	99	1.1111	0.4714

TABLE II (Continued)

I believe that	Crawford Mean Score	Number	Mean Score	Standard Deviation
(88) distributive education students should be counseled periodically by teacher-coordinators, employers and guidance counselors concerning progress towards their occupational objectives.	1.11	99	1.2424	0.6076
(89) DECA, the youth organization for high school and post-secondary school students, should be co-curricular in that it should provide opportunities to further develop competencies normally learned in the classroom and on the job. It also provides opportunities to acquire additional competencies, such as leadership and social skills.	1.34	99	1.2121	0.5937
(90) vocational instruction in distribution and marketing should be based primarily on the local needs and trends in marketing, merchandising and related management. However, it should also take into account state, national, and world trade as well as such things as family mobility and occupational relocation.	1.42	99	1.2929	0.7179

TABLE II (Continued)

I believe that ...	Crawford Mean Score	Number	Mean Score	Standard Deviation
(91) the development of competencies in distributive occupations involves both individual and group instruction.	1.04	99	1.0606	0.2791
(92) distributive education should provide for correlation with other subject areas such as English, social studies, economics, mathematics, and art, as well as with subjects in other vocational fields.	1.22	99	1.2222	0.4856
(93) the areas of study concept of distributive education curriculums provides for a flexibility in curriculum organization that makes the depth of instruction depend on occupational objectives and competencies needed by individual students and on their abilities.	1.32	98	1.3469	0.6276
(94) distributive education should serve the needs of both the individual student and the business community.	1.12	99	1.1414	0.4043

TABLE II (Continued)

I believe that ...	Crawford Mean Score	Number	Mean Score	Standard Deviation
(95) the distributive education program should provide a continuum of educational opportunity that allows individuals to refine or redirect their occupational objectives.	1.06	98	1.1429	0.4541
(96) the distributive education program should reflect training needs and employment opportunities as evidenced by resources such as community surveys, business census and labor force reports, and advisory services.	1.11	99	1.2626	0.5991
(97) distributive education should cooperate with other vocational services in planning instructional programs for those occupations which cut across fields, each service providing the instruction in which it specializes.	1.14	99	1.2626	0.6322
(98) because of individualized instruction and the nature of the behavioral outcomes desired, the size of the distributive education class is an important factor.	1.13	99	1.0202	0.1414

TABLE II (Continued)

I believe that ...	Crawford Mean Score	Number	Mean Score	Standard Deviation
(99) audio-visual materials are highly desirable for good classroom instruction in distributive education.	1.17	99	1.1919	0.4444
(100) in a changing world of distribution it is essential that both content and teaching method in distributive education be kept up-to-date.	1.01	99	1.0101	0.1005

*Belief statement numbers 81 - 100, reprinted with permission, were selected from a research study entitled, A Competency Pattern Approach to Curriculum Construction in Distributive Education, Vol. I, directed by Lucy C. Crawford (Blacksburg: Virginia Polytechnic Institute, 1967), pp. 20-29.

II. CHI-SQUARE ANALYSIS OF THE TEACHING BELIEF STATEMENTS

The Chi-square statistic was utilized to determine whether certain relationships between the teaching belief statements responses and specific, identified teacher-coordinator classifications were significantly different from relationships that would exist if the chance factors were involved. The Chi-square statistic was computed to test the following hypotheses:

1. Cooperative-plan distributive education teacher-coordinators and project-plan distributive education teacher-coordinators from the sample population, as groups, are in concordance in their reactions to the individual teaching belief statements.

2. High-ranked cooperative plan distributive education teacher-coordinators and low-ranked cooperative plan distributive education teacher-coordinators from the sample population, as individual groups, are in concordance in their reactions to the individual teaching belief statements.

3. High-ranked project plan distributive education teacher-coordinators and low-ranked project plan distributive education teacher-coordinators from the sample population, as individual groups, are in concordance in their reactions to the individual teaching belief statements.

4. Identified distributive education teacher-coordinator classifications (high-ranked cooperative, low-ranked cooperative, randomly-selected cooperative, high-ranked project, low-ranked project, and randomly-selected project) from the sample population, as individual groups, are in concordance in their reactions to the individual teaching belief statements.

5. A cross classification of distributive education teacher-coordinators (a) high-ranked cooperative versus randomly-selected cooperative, (b) high-ranked cooperative versus high-ranked project, (c) high-ranked cooperative versus low-ranked project, (d) high-ranked cooperative versus randomly-selected project, (e) low-ranked cooperative versus randomly-selected cooperative, (f) low-ranked cooperative versus high-ranked project, (g) low-ranked cooperative versus low-ranked project, (h) low-ranked cooperative versus randomly-selected project, (i) randomly-selected cooperative versus high-ranked project, (j) randomly-selected cooperative versus low-ranked project, (k) randomly-selected cooperative versus randomly-selected project, (l) high-ranked project versus randomly-selected project, and (m) low-ranked project versus randomly-selected project) from the sample population, as individual groups, are in concordance in their reactions to the individual teaching belief statements.

The existence of a significant difference between cooperative plan and project plan teacher-coordinators could not be sustained at the .05 level of confidence for 98 of the 100 teaching belief statements. Therefore, Hypothesis 1 could not be rejected. The existence of a significant difference between high-ranked cooperative plan and low-ranked cooperative plan teacher-coordinators could not be sustained at the .05 level of confidence for 95 of the 100 teaching belief statements. Therefore, Hypothesis 2 could not be rejected. The existence of a significant difference between (1) high-ranked project plan and low-ranked project plan teacher-coordinators; and, between the (2) identified teacher-

coordinator classifications could not be sustained at the .05 level of confidence for all 100 teaching belief statements. Therefore, Hypotheses 3 and 4 could not be rejected. The existence of a significant difference between a cross classification of teacher-coordinators could not be sustained at the .05 level of confidence for 85 of the 100 teaching belief statements. Therefore, Hypothesis 5 could not be rejected.

III. ANALYSIS OF THE TEACHING BELIEF STATEMENTS USING FACTOR ANALYSIS

Factor analysis was employed in this study to reduce the 100 teaching belief statements to a small number of conceptual variables. Thirteen factors were found to account for 99.5 per cent of the variance. The belief statements were labeled, according to highest factor loadings, into the following 13 major categories:

I. The Role and Characteristics of the Distributive Education Teacher

II. The Distributive Education Learning Process and Climate

III. The Distributive Education Teacher's Personal and Professional Qualifications

IV. Distributive Education Methodology and Techniques

V. The Distributive Education Curriculum and Instructional Content

VI. Distributive Education Classroom Experiences

VII. Distributive Education Goals and Objectives

VIII. Distributive Education Student Involvement

IX. Distributive Education Student Behavioral Patterns

X. Distributive Education Testing and Measurement

XI. Distributive Education Motivational Techniques

XII. The Distributive Education Teacher's Responsibility to Students

XIII. Distributive Education Discipline and Control

The teaching belief statements loading highest on Factor I seemed to primarily emphasize the role and characteristics of the distributive education teacher. Factor I was characterized by descriptions such as: assists students in developing self-reliance, employs review techniques, develops knowledge and skills, generates enthusiasm, and exercises discipline. Additional descriptions were: the teacher confirms grading, displays creativity and drive, prepares and presents correlated instruction, and manifests knowledge of career opportunities.

Factor II appeared to relate to the distributive education learning process and climate. Factor II may be described as: effective learning theory, appropriate question reinforcement, skillful listening and comprehension, desirable behavioral goals, assessable self-determination, relevant subject matter, advisable testing and review, adequate study time, intelligence quotient

cognizance, and classroom instruction responsibilities.

Factor III appeared to refer to the distributive education teacher's personal and professional qualifications. The teaching belief statements loading highest on Factor III may be characterized by descriptions such as: uses effective instructional methods, displays exemplary grooming, applies up-to-date technical competencies, exerts instructional insight, possesses a good sense of humor, and practices meaningful guidance and counseling. Additional descriptions were: employs effective learning theory, exhibits adequate training, and provides appropriate professional services.

The teaching belief statements loading highest on Factor IV appeared to primarily emphasize distributive education methodology and techniques. The factors relate to areas such as systematic teaching processes, realistic standards, meaningful assignments, rational learning processes, purposeful repetition, appropriate individual instruction, instrumental career-objective concept, judicial detention, and optimum class size.

Factor V seemed to relate to the distributive education curriculum and instructional content. The teaching belief statements loading highest are characterized by descriptions such as:

distinct occupational goals and opportunities, recognizable ability level, advance assignments, interpretable course content, planned co-curricular activities, emphasized student individuality, and scheduled block program. Additional descriptions were: basic skill competencies, instructional individualism, current national, state, and local trends, and varied instructional processes.

Factor VI appeared to refer to distributive education classroom experiences. The teaching belief statements loading highest on Factor VI may be described as: up-to-date instructional media, effective learning, goal achievement, purposeful learning, worthwhile practical experiences, adequate time allotment, areas-of-study concept, and educational opportunity continuum.

The teaching belief statements loading highest on Factor VII seemed to primarily emphasize distributive education goals and objectives. Factor VII may be described as: distinct direction of instruction, consistent evaluation, identifiable employment qualifications, masterful teacher competency, sensitive instructional flexibility, and adaptable instructional programs.

Factor VIII appeared to relate to distributive education student involvement. The teaching belief statements loading highest on Factor VIII were characterized by: directional vocational instruction, current practices and content, problematic

reasoning, realistic occupational experiences, and laboratory equipment utilization.

Factor IX seemed to refer to distributive education student behavioral patterns. The teaching belief statements loading highest on Factor IX are exemplified by the following terms: industrious consistency, sincere cooperation, practical variability, business-like punctuality, comprehensive correlation, and constructive peer group activities.

Factor X appeared to refer to distributive education testing and measurement. The teaching belief statements loading highest on Factor X may be described with the following phrases: determines level of understanding, encourages individual participation, defines grading practices, and acknowledges student achievement.

The teaching belief statements loading highest on Factor XI seemed to primarily emphasize distributive education motivational techniques. Factor XI is characterized by descriptions such as: student accomplishment recognition, supplemental rewarding experiences, adequate instructional time, and clear assignment objectives.

Factor XII appeared to relate to the distributive education teacher's responsibility to students. The teaching belief statements loading highest on Factor XII may be described as:

periodic review, exposed student competencies, adequate clarification and simplification, factual information disbursement, and comprehensive vocational guidance.

Factor XIII seemed to refer to distributive education discipline and control. The teaching belief statements loading highest are characterized as: peer group pressure, teacher preplanning, grading penalties, testing practices, and student experience and development.

Background Information of the Teacher-Coordinator Respondents and Their Distributive Education Programs

The 99 respondents represented a variation of ages, educational preparation, work experience, classroom experiences, and coordination experience. The following information represents a summarization of the respondents' experience, background, and programs:

1. Over 70 per cent of the 99 respondents have been teacher-coordinators four years or less in their present school system.

2. The respondents were almost evenly divided between those under 36 years of age and those 36 years of age or older.

3. The three major classifications of undergraduate degrees earned by the 99 respondents were: marketing or business administration, business education, and distributive education.

4. Almost 50 per cent of the 99 respondents had earned a master's degree. The degrees were in the following frequency order and educational areas: (1) distributive education, (2) business education, (3) guidance and counseling.

5. Over 40 per cent of the 99 respondents had specialized in the area of distributive education after earning their last degree.

6. Thirty-five of the 99 respondents had earned 15 or more semester hours of professional vocational course work credit.

7. Over 70 per cent of the 99 respondents had earned 13 or more semester hours in technical course work.

8. The majority of the participants had not taken advantage of supervised work experience which is offered by educational institutions on the undergraduate and/or graduate level.

9. Over 40 per cent of the 99 respondents had over five years of business experience in retailing, wholesaling, or service occupations.

10. Nearly 80 per cent of the respondents had a longer annual teaching contract than did their colleagues in the same school district.

11. Plan "B" and Plan "C" represented 31 of the 49 cooperative education programs reported by cooperative distributive education teacher-coordinators.

12. The most-popular type of project plan is a one-year project program offered in the junior year plus a one-year co-operative program, with one hour of related instruction, in the senior year.

13. Two-thirds of the 99 respondents stated that an advisory committee was part of their total distributive education program.

14. One hundred per cent of the cooperative distributive education teacher-coordinators sponsored a chapter of Distributive Education Clubs of America.

15. Over 80 per cent of the 99 respondents were granted final authority in the selection of students for the distributive education program.

16. Distributive education teacher-coordinators affiliated themselves with a number of professional organizations. These organizations, in order of frequency, were: state vocational education association, National Education Association, state educational association, and American Vocational Association.

17. The Balance Sheet, Display World, and Consumer Reports are the most-widely read professional, trade journal, and business publications for the 99 respondents.

Utilizing the Chi-square statistic, three relationships between selected background issues and responses of the high-ranked and low-ranked teacher-coordinators in their classifications were statistically significant at the .05 level of con-

fidence. Proportionately, the high-ranked cooperative plan teacher-coordinators' undergraduate degree majors were in the areas of distributive education and business education, while the low-ranked cooperative plan teacher-coordinators majored in marketing, business administration, accounting, or economics. In addition, the high-ranked project plan teacher-coordinators were, proportionately, more likely to sponsor a chapter of Distributive Education Clubs of America and to have final authority when selecting students than the low-ranked project plan teacher-coordinators.

Identification of Successful Classroom Methodology of Project and Cooperative Distributive Education Teacher-Coordinators

A total of 157 techniques were listed by the 71 project and cooperative distributive education teacher-coordinators who completed this section of the survey instrument. Successful techniques or methodology was requested in this section. No attempts were made to identify the teaching method with the rankings of state supervisors of distributive education or with teacher-educators of distributive education.

The 157 techniques were grouped into the following identifiable classifications: surveys, role playing, school store, youth group activities, closed-circuit television, manuals, re-

search projects, case problems, display preparation, advertising campaigns, unit review, continuing project, simulated training programs, class discussion, business games, programmed instruction, and career investigation. The respondents stressed the educational aims of each particular method which they had listed as well as stressing the preplanning involved in the implementation of the method.

CONCLUSIONS

This research has resulted in the collection of data dealing with teaching beliefs and classroom methodology of secondary school, cooperative-plan and project-plan distributive education teacher-coordinators in a six-state area. These findings were based on a statistical analysis of the 99 respondents' reactions obtained by means of a survey instrument. It is reasonable to conclude the following for the population studied in this research investigation during the 1967-68 school year:

1. The stated, specific teaching beliefs of distributive education teacher-coordinators can be determined by analyzing appropriate data supplied by the respondents.

2. Cooperative-plan and project-plan distributive education teacher-coordinators express the same basic beliefs toward the instructional phase of the distributive education program.

3. The teaching belief statements were not an effective element in distinguishing between teacher-coordinators considered outstanding (high-ranked) and least effective (low-ranked) by distributive education teacher-educators and state supervisors of distributive education.

4. The 100 teaching belief statements can be described in terms of a limited number of dimensions which provide insight into the instructional processes and specific responsibilities of distributive education teacher-coordinators.

5. The teaching belief statements developed in this research study are valid for all distributive education teacher-coordinators.

6. A number of classroom instructional methods and techniques are used by both cooperative-plan and project-plan distributive education teacher-coordinators. A classroom method or technique is not restricted to one organizational plan, but can be interchanged when appropriate.

7. Project-plan distributive education teacher-coordinators who sponsored a Distributive Education Clubs of America chapter, and who had final authority when selecting students for the distributive education program, are considered more outstanding (high-ranked) in classroom methodology by teacher-educators and state supervisors of distributive education than their counterparts (low-ranked) who did not have a club program or final authority in student selection.

8. Cooperative-plan distributive education teacher-coordinators who majored in distributive education and business education at the undergraduate level are considered more

outstanding (high-ranked) in classroom methodology by teacher-educators and state supervisors of distributive education than their counterparts (low-ranked) who majored in marketing, accounting, business administration, and economics.

9. The project programs currently in operation are an outgrowth of cooperative programs administered, implemented, and taught by teacher-coordinators trained in the cooperative plan of instruction. To improve and advance the project plan of instruction, project plan teacher-coordinators should be effectively prepared in professional education courses that emphasize the methodology and implementation procedures of the project plan of instruction.

RECOMMENDATIONS

Based upon the findings and conclusions of this research study, the following recommendations are offered:

1. The teaching belief statements developed in this study should be examined carefully by teacher-educators and other distributive education personnel who are responsible for initiating, developing, and administering preservice and inservice distributive education programs.

2. The distributive education teacher-coordinators could use the belief statements developed in this study as criteria for self-evaluation of instructional activities and methods.

3. The teaching belief statements developed in this research study serve as a frame of reference for the development of a philosophy of teaching methodology for the distributive education program.

4. A study similar to this investigation should be conducted after the project plan of instruction has been in operation for a few additional years. The study should isolate teacher-coordinators whose sole responsibility is involvement with the project plan or with the cooperative plan of instruction. Research should study teacher-coordinators who have been trained in the project

plan of instruction or in the cooperative plan of instruction at the undergraduate or graduate level.

5. Further studies are recommended for research in the following areas to determine the:

a. effectiveness or ineffectiveness of selected teaching methods in the distributive education classroom.

b. classroom methodology and teaching beliefs of post-high school distributive education teachers.

c. effectiveness of pre-service and in-service training as related to distributive education teaching methodology.

d. common elements of teaching beliefs and classroom methodology among the fields of vocational education.

e. relationships which exist between the classroom methodology of distributive education teacher-coordinators and the classroom achievement of distributive education students.

f. elements which are essential for effective project plan programs. These include allocation of planning and coordination time for developing learning activities, appropriate funds and facilities for implementing the program and program evaluation.